

(19) World Intellectual Property
Organization
International Bureau



544293

(43) International Publication Date
19 August 2004 (19.08.2004)

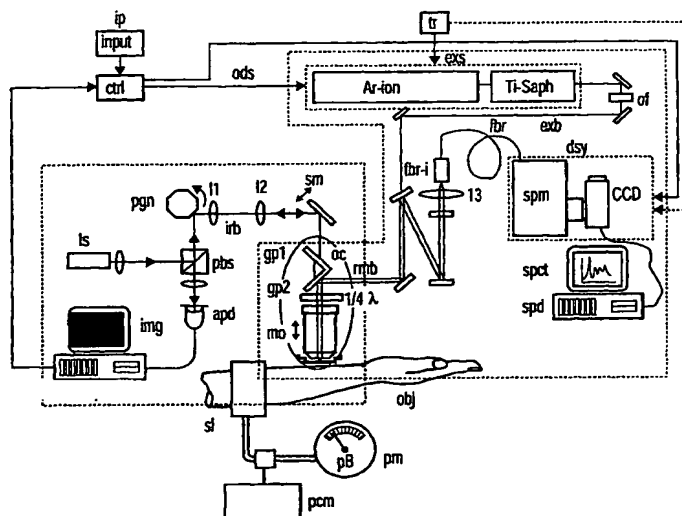
PCT

(10) International Publication Number
WO 2004/070368 A1

- (51) International Patent Classification⁷: G01N 21/65, A61B 5/145, G01N 33/49 (74) Agent: COHEN, Julius, S.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (21) International Application Number: PCT/IB2004/050034 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 19 January 2004 (19.01.2004) (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 03100249.6 6 February 2003 (06.02.2003) EP
- (71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Gronewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): LUCASSEN, Gerhardus, W. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). PUPPELS, Gerwin, J. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). VAN DER VOORT, Marjolein [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). WOLTHUIS, Rolf [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- Published:
— with international search report

[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR BLOOD ANALYSIS



(57) Abstract: The present invention relates to an analysis apparatus, in particular a spectroscopic analysis apparatus, for blood analysis on vessels. An excitation system (exs) emits an excitation beam to excite a target region. A detection system (dsy) is provided for detecting and analyzing scattered radiation from the target region. Those areas are selected or predetermined so that only scattered radiation from blood in capillaries having a diameter below a predetermined diameter value and/or including an amount of red blood cells below a predetermined cell amount is analyzed. Thus, in contrast to analysis on whole blood or large amounts of blood cells less reabsorption and scattering of Raman light due to red blood cells is obtained. Further, the possibility to directly measure in the blood plasma without interference of the red blood cells, thereby yielding a higher signal-to-noise ratio, is given.

WO 2004/070368 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.